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ABSTRACT

This study investigated teachers' culture-dependent attitudes toward gifted education. A group of 147 Finnish teachers, 214 Hong Kong teachers, and 160 American teachers (preservice teachers, regular classroom teachers, and teachers of gifted students) completed an attitude toward gifted education scale. Researchers used the resulting data to examine the relationship of attitude to variables such as age, gender, having a gifted family member, and respondent giftedness. The study focused on the relationship between teachers' attitude and culture. Bayesian predictive discriminant analysis demonstrated cultural differences. The variable, "there are no gifted children in our school," was the most discriminating item on the questionnaire. American and Finnish teachers both strongly disagreed with this item, while Hong Kong teachers disagreed less strongly. The second most discriminating variable, "the gifted should spend their spare time helping those who progress less rapidly," was supported most strongly by Hong Kong teachers, while American teachers had varying attitudes and Finnish teachers had two opposing attitudes. On the third most discriminating variable, "all children are gifted," Hong Kong teachers differed from the western teachers by strongly disagreeing. The study instrument is appended. (Contains 17 references.) (SM)

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Cross-cultural predictors of teachers' attitudes toward gifted education: Finland, Hong Kong, and USA

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Running head: CROSS-CULTURAL PREDICTORS OF TEACHERS' ATTITUDES TOWARD GIFTED EDUCATION

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Objectives

The purpose of this study was to investigate the culture-dependent attitudes of teachers toward gifted education. The sample consisted of Finnish teachers (N=147), Hong Kong teachers (N=214) and American teachers (N=160). The teachers from each country represented pre-service teachers, regular classroom teachers, and teachers of the gifted. The instrument used was the attitude scale toward gifted education developed by Gagne and Nadeau (1985). The relationship of attitude to demographic variables, such as age, gender, having a gifted family member and giftedness of respondents were examined. However, a special emphasis in this study was on the relationship of attitude to the culture from which the teacher came. The primary purpose of this study was to identify cross-cultural predictors of teachers' attitudes toward gifted education. In addition, a new method to find these predictors was introduced as an alternative methodological approach in prediction. Finally, the results of this study were compared to an earlier study using more traditional quantitative methods (Tallent-Runnels, Tirri & Adams 2000).

Perspective

In prior studies few variables have consistently emerged as substantial explanatory factors for attitudes toward and perceptions of gifted children and services for the gifted. Begin and Gagne (1994), in their analysis and summary of results of 30 studies with almost 50 variables, concluded that only three potentially valid predictors emerged. These were contact with gifted children, sex of the respondents, and teachers vs. parents. However, methodological problems and much variation among studies prompted them to make several recommendations for future studies. Results from several other studies (e.g., Copenhaver & McIntyre 1992; Jones & Southern 1992; Morris 1987) demonstrated that those with more knowledge about gifted children hold more favorable attitudes toward them. Another factor that emerged from many studies is experience working with gifted children. In general, teachers who have worked with them have more positive attitudes toward them than teachers who have no experience teaching gifted children (Begin & Gagne 1994; Copenhaver & McIntyre 1992; Dettmer 1985; Townsend & Patrick 1993).

Some of the studies concerning attitude have been conducted in countries other than the United States (e.g., Awanbor 1991; Busse, Dahme, Wagner & Wieczerkowski 1986; Gagne 1983; Tirri & Uusikylä 1994; Ojanen & Freeman 1994, Tallent-Runnels et al. 2000). Only three of these studies (Busse et al. 1986, Ojanen & Freeman 1994; and Talent-Runnels et al. 2000) were cross-cultural. The first one (Busse et al. 1986)

compared samples from Germany and from the United States. This study examined teacher perceptions of characteristics of highly gifted students. There were some differences, with German focusing more on creativity and Americans focusing on intelligence as indicative of giftedness. The other cross-cultural study (Ojanen & Freeman 1994) examined the attitudes and experiences of headteachers, class-teachers, and highly-able students toward the education of the highly able in Finland and Britain. According to this study the British headteachers were more concerned than the Finns about the potential problems of their highly able students. The Finnish teachers preferred to keep highly able students within normal classroom routine and with other children, in order to promote their social skills, and also to have them as good examples for the less talented students. They were afraid of the isolation, which might occur should talented children be placed in special schools something they all deplored. Instead, they preferred special arrangements within ordinary, mixed-ability classes and schools (Ojanen & Freeman 1994).

In the most recent cross-cultural study on teacher attitudes toward gifted education the Finnish teachers were shown to be more concerned about the negative side effects of special classes and other special arrangements for the gifted outside the regular classroom than their American colleagues (Tallent-Runnels et al. 2000). In this paper our aim is to further explore those attitudes toward gifted education that are strongly culture-dependant by adding another country to this comparison, namely, Hong Kong.

Methods

Participants were from Finland (N=147), Hong Kong (N=214) and the United States (N=160). These were regular classroom teachers, pre-service teachers, and gifted program teachers (see Table 1.) All groups included elementary and secondary teachers, several grade levels, several subject areas, and varying years of experience. The instrument utilized was Form A of the Attitudes Toward Giftedness scale developed by Gagne and Nadeau (1985). The scale contains 60 statements; the questionnaire uses a 5-point Likert-type scale (from Strongly agree to Strongly disagree). Procedures included administration of the instrument within college classes for preservice teachers. Other teachers were asked by school personnel to participate. All participation was anonymous and voluntary. Attached to the instrument was a demographics sheet asking age, gender, subjects taught, grad level taught, if they were gifted, or if they had a gifted family member.

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insert Table 1 approximately here

Findings

Results of the Factor Analysis

In our previous study with USA and Finnish data we found 18-factor solution with oblique rotation to be the ideal factor solution for our data (Tallent-Runnels, Tirri & Adams, 2000). After adding the Hong Kong data to our sample we found the 16-factor solution with oblimin rotation to be justified for our data. The means and standard deviations of each factor are presented by country in Table 2.

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insert Table 2 approximately here

Results of the MANOVA

MANOVA results by the country (Finland, USA, Hong Kong) and type of teacher (pre-service, regular classroom, gifted program) did suggest differences between cultures and among teacher types. For the 16 factors there was a significant effect for country [Wilks Lambda = .427, F=16.35, p = .000]. There was also a main effect for the type of teacher [Wilks Lambda = .823, F=3.16, p=.000]. Finally, there was a significant interaction effect [Wilks Lambda = .731, F=2.515, p=.000].

To further explore the differences in the attitudes of the teachers from different countries, we performed a Bayesian analysis with all the items of the questionnaire. This allowed us to identify the culture-dependent and culture invariant variables in the Gagne's instrument.

The results of the Bayesian predictive discriminant analysis

We prepared the data set (N=519) by replacing missing values with means and conducted the Bayesian classification analysis (Silander & Tirri 1999) in order to find out more evidence for identifying those teacher attitudes that are the most culture-dependant. Our interest was to examine teachers' attitudes with respect to predicting their country of

origin. Being Bayesian in our modeling means that we assess the probabilities of different models in the light of collected evidence (data sample) and our previous views. The Bayesian procedure differs from the classical statistical treatments by using many models and weighting these different models by their probabilities. We acknowledge that no data is actually distributed by multivariate normal distributions, nor is it distributed by any other simple distribution. Another reason for using Bayesian analysis is based on the fact that Bayesian classification outperformes other classification devices such as the traditional discriminant analysis, and the more recent techniques such as neural networks and decision trees. Being powerful in prediction and intuitive in description, it also suits well for the needs of educational research (Silander & Tirri 1999).

We derived a model for classifying the data items according to the class variable "Country" ("USA", "Finland", "Hong Kong") with the 60 variables of the attitude scale toward gifted education as predictors. We will show that the Bayesian method can correctly predict the country of the teacher for 86.92% of the cases.

The final model, a pack of variables, is the estimated best classifier found in time used for searching. It can be estimated that using the selected model 86.92% of future classifications will be correct. This estimation is based on the following external leave-one-out cross-validation procedure: We built 520 models, each of which was constructed using 519 data items from the data set. The model was then used to classify the data items not used in the model's construction. 452 out of 520 models succeeded in classifying the one unseen data item correctly. The classification performance of our model (86.92%) exceeds the performance obtainable by a "default" classification procedure (40.96%) that

always guesses the class of the data item to be the class of the majority ("Hong Kong" in this case).

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insert Table 3 approximately here

Table 3 lists the variables ordered by their estimated classification performance in the model. The strongest variables, i.e. those that discriminate the three countries best, are listed first. The percentage values attached for each variable in Table 3 indicate the predicted decrease in the classification performance if the variable is dropped from the model. Table 2 indicates that variables in our model spread into three categories: Top (five variables), middle (nine variables), and lower class (ten variables). The most important variable in the top five class is variable 60 "There are no gifted children in our school". Removal of that variable would weaken the performance of the whole model from 86.92% to 82.30%. In addition, other top five variables, variable 47 "The gifted should spend their spare time helping those who progress less rapidly", variable 18 "All children are gifted", variable 48 "It is parents who have the major responsibility for helping gifted children develop their talents" and variable 25 "The best way to meet the needs of the gifted is to put them in special classes", each have explanation proportions greater than three percent resulting in a total effect of this group of 17.5 percent (Table 3).

We believe that one would find cross-cultural trends by examining the best predicting variables more thoroughly. We examined the top three predictors by calculating their predictive distributions by likert scale 1 to 5 for each country (Figure 1).

Figure 1 reveals why variable 60 is considered as the best predictor in our model, and it also shows that Finnish and U.S. teachers answering profiles are more alike than their Hong Kong colleagues'.

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insert Figure 1 approximately here

The weakest predictors of our model were variable 49 "It is more damaging for a gifted child to waste time in class than to adapt to skipping a grade", variable 22 "Schools should allow gifted students to progress more rapidly" and variable 9 "In our schools, it is not always possible for gifted children to fully develop their talents". Those variables were thus the most common factors among USA, Finland and Hong Kong teachers (Table 3).

In the classification process the automatic search tried to find the best set of variables that predict the country for each data item. This procedure is akin to the stepwise selection procedure in the discriminant analysis (Klecka, 1981). The variables that were not selected for any subset are not good ones to predict cross-cultural attitudes in our data. These variables are presented in Table 4.

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insert Table 4 approximately here

The overall result of 86.92% is just an average performance rate of the classification model. Table 5 presents classification performance by groups. The second column in Table 5 ("Success for different predictions") presents the estimated correctness

of classification performance and its reliability by groups. The figure in this column shows the probability for correct classification for each country in percentages. Next to each estimate there is a figure indicating the percentage of the sample size used to calculate this estimate. The third column in Table 5 ("Success in different classes") presents the group difficulty, i.e. how well the data items of different classes can be predicted. The fourth column of Table 5 ("Predicted group membership") shows how many of the members of certain classes were predicted to be members of certain other class. The entries denoting numbers of correct classifications are denoted by printing them in bold.

The Hong Kong data was more coherent compared to USA or Finland yielding the best predictive classification results with only 13 misclassifications (9 for USA and 4 for Finland). The model had the most difficulties predicting group membership for teachers from USA. Teachers from Finland were most likely to be mixed with their colleagues from USA (19) than from Hong Kong (3) (see Table 4.)

Significance of the Study

The Bayesian predictive discriminant analysis demonstrated cultural differences with the scale used. Results of this study add to cross cultural studies which are rarely conducted in gifted education. In addition, new knowledge is contributed to the field of gifted education. This new knowledge is more information about factors related to attitudes toward gifted children as well as information about instrumentation used for these studies. This information can be used to promote training of all teachers, including pre-service teachers.

According to the Bayesian analysis, the variable 60 " There are no gifted children in our school" was shown to be the most discriminating item in our questionnaire. The USA teachers' and Finnish teachers' profiles were more in accord with each other in regard to this item than the Hong Kong teachers' profile. The USA and Finnish teachers strongly disagreed with this item and the Hong Kong teachers disagreed less strongly. The second most discriminating variable 47 " The gifted should spend their spare time helping those who progress less rapidly" was mostly supported by Hong Kong teachers. The USA teachers represented all kinds of attitudes regarding this item and the Finnish teachers' had two opposing attitudes. This trend reflects the difference between the helpful oriented Asian culture and the more independent oriented western culture. The third most discriminating variable 18 "All children are gifted" showed again that the Hong Kong teachers differed from the western teachers. Asian teachers disagreed the most regarding this item, Finnish teachers agreed the most and the USA teachers had the most varied responses.

This study adds new knowledge on the cross-cultural differences in teachers' attitudes toward gifted education. The new method used in analyzing the data predicts culture-dependent attitudes with 86.9 % accuracy. The findings of this study can be used in developing cross-culturally valid instruments in measuring teacher attitudes toward gifted education. Furthermore, the results of this study can guide teacher educators in different countries to provide information and knowledge on the contents of special classes and programs for the gifted.

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USA	Finland	Hong Kong
Student Teachers Elementary = 27 Secondary = 52 Practicing Teachers Elementary = 27 Secondary = 14 Gifted Teachers Elementary = 27 Secondary = 12	Student Teachers Elementary = 44 Secondary = 0 Practicing Teachers Elementary = 39 Secondary = 9 Gifted Teachers Elementary = 17 Secondary = 32	Student Teachers Elementary = 15 Secondary = 59 Practicing Teachers Elementary = 23 Secondary = 97 Gifted Teachers Elementary = 13 Secondary = 7

Table 1. Frequencies for Type of Teacher by Elementary and Secondary for USA, Finland and Hong Kong (N = 519)

	USA		Finland		Hong Kong	
	Mean	SD	Mean	SD	Mean	SD
Factor 1	4.09	.63	4.20	.52	3.91	.66
Factor 2	3.35	.90	3.13	.81	2.29	.61
Factor 3	2.90	.72	2.88	.70	2.31	.59
Factor 4	3.33	.43	3.61	.49	3.25	.43
Factor 5	3.97	.64	3.94	.65	3.94	.67
Factor 6	2.54	.89	2.71	.92	3.24	.76
Factor 7	3.89	.71	4.19	.59	4.00	.75
Factor 8	3.36	1.17	2.67	1.21	2.86	1.12
Factor 9	2.89	.83	3.20	.83	3.15	.68
Factor 10	3.43	.70	3.89	.71	4.05	.56
Factor 11	3.36	.59	3.21	.57	3.13	.48
Factor 12	3.38	1.06	3.56	.82	3.10	1.10
Factor 13	3.14	.49	3.10	.42	3.23	.42
Factor 14	2.83	.60	3.20	.54	3.37	.48
Factor 15	3.22	1.13	3.37	1.05	3.50	.90
Factor 16	2.75	.85	2.69	.93	2.74	.81

Table 2. The means and standard deviations of each factor by country.

Variable name		Decrease in predictive classification if variable is dropped (%)
60.	There are no gifted children in our school.	4.62
47.	The gifted should spend their spare time helping those who progress less rapidly.	3.65
18.	All children are gifted.	3.08
48.	It is parents who have the major responsibility for helping gifted children develop their talents.	3.08
25.	The best way to meet the needs of the gifted is to put them in special classes.	3.08
37.	It isn't a compliment to be described as a "whiz kid".	2.69
7.	It is unfair to deprive gifted children of the enrichment which they need.	2.50
8.	Children with difficulties have the most need of special educational services.	2.50
51.	Special educational services for the gifted are a mark of privilege.	2.31
13.	Whatever the school program, the gifted will succeed in any case.	2.31
17.	The gifted come mostly from wealthy families.	2.12
32.	The speed of learning in our schools is far too slow for the gifted.	2.12
44.	We have a greater moral responsibility to give special help to children with difficulties than to gifted children.	2.12
40.	It is less profitable to offer special education to children with difficulties than to gifted children.	2.12
3.	Offering special help to the gifted helps perpetuate social inequalities.	1.73
20.	A greater number of gifted children should be allowed to skip a grade.	1.73
59.	Skipping a grade forces children to progress too rapidly.	1.54
24.	An enriched school program can help gifted children to completely develop their abilities.	1.54
54.	In our schools, it is possible to meet the educational needs of the gifted without investing additional resources.	1.35

5.	Special programs for gifted children have the drawback of creating elitism.	0.96
12.	The gifted are already favoured in our schools.	0.96
49.	It is more damaging for a gifted child to waste time in class than to adapt to skipping a grade.	0.77
22.	Schools should allow gifted students to progress more rapidly.	0.58
9.	In our schools, it is not always possible for gifted children to fully develop their talents.	0.58

Table 3. Importance ranking of the variables in the bayesian classification model.

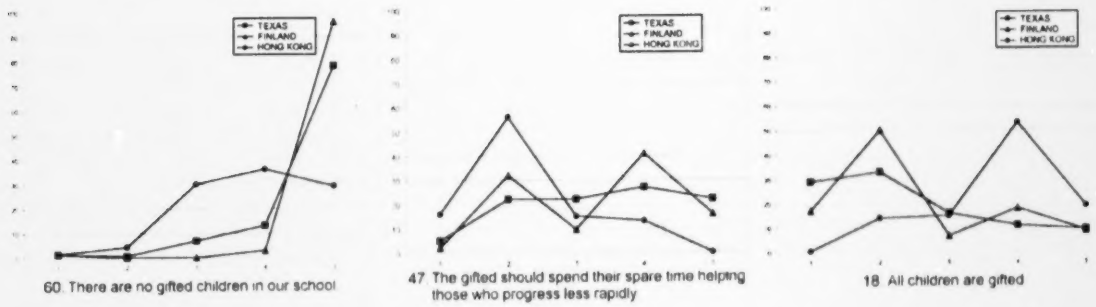
TEXAS
FINLAND
HONG KONG
60. There are no gifted children in our school
47. The gifted should spend their spare time helping those who progress less rapidly
18. All children are gifted

Figure 1. Predictive distributions of the three best classifying variables.

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	Variable name
1.	Talent is a rare commodity which we must encourage.
2.	Devoting special funds to the education of gifted children constitutes a profitable investment in the future of our society.
4.	Special services for the gifted constitute an injustice to other children.
6.	Since we invest supplementary funds for children with difficulties, we should do the same for the gifted.
10.	Our schools are already adequate in meeting the needs of the gifted.
11.	Gifted children don't need special educational services.
14.	Because of a lack of appropriate programs for them, the gifted of today may become the dropouts and delinquents of tomorrow.
15.	The gifted waste their time in regular classes.
16.	If the gifted are not sufficiently motivated in school, they may become lazy.
19.	People are born gifted, you can't become gifted.
21.	Most gifted children who skip a grade have difficulties in their social adjustment to a group of older students.
23.	Enriched school programs respond to the needs of gifted children better than skipping a grade.
26.	Most teachers do not have the time to give special attention to their gifted students.
27.	By separating students into gifted and other groups, we increase the labelling of children as strong-weak, good-less good, etc.
28.	Special programs for gifted children make them more motivated to learn
29.	When the gifted are put in special classes, the other children feel devalued.
30.	Often, gifted children are rejected because people are envious of them.
31.	Gifted children might become vain or egotistical if they are given special attention.
33.	I am sometimes uncomfortable before people I consider to be gifted.
34.	Average children are the major resource of our society, so, they should be the focus of our attention.
35.	We should give special attention to the gifted just as we give special attention to children with difficulties.
36.	Some teachers are jealous of the talents their gifted students possess.
38.	The enrichment tract is a good means with which to meet certain special needs of gifted children.
39.	The gifted need special attention in order to fully develop their talents.

41.	Gifted students often disturb other students in the class.
42.	The idea of offering special educational services to gifted children goes against the democratic principles of our society
43.	Sooner or later, regular school programs may stifle the intellectual curiosity of certain gifted children.
45.	In order to progress, a society must develop the talents of gifted individuals to a maximum.
46.	Gifted children are often unsociable.
50.	Equal opportunity in education does not mean having the same program for everyone, but rather programs adapted to the specific needs of each child.'
52.	Generally, teachers prefer to teach gifted children rather than those who have difficulties.
53.	Some children are more gifted than others.
55.	A child who has been identified as gifted has more difficulty in making friends.
56.	All children could be gifted if they benefited from a favourable environment.
57.	When gifted children are put together in a special class most adapt badly to the fact that they are no longer at the head of the class.
58.	Skipping a grade emphasizes scholastic knowledge too much.

Table 4. The variables excluded from the bayesian discriminant analysis.

	Success for different predictions (%, N)	Success in different classes (%, N)	Predicted group membership (N)		
			USA	Finland	Hong Kong
USA	81 (155)	79 (160)	**127**	15	18
Finland	86 (144)	85 (147)	19	**125**	3
Hong Kong	90 (221)	93 (213)	9	4	**200**

Table 5. Classification performance by groups.

Appendix 1. The Instrument

Directions: Please answer the following questions/items by circling the answers or filling in the blank, whichever is appropriate.

1. Male _____ Female _____
2. Year of birth: _____
3. Check one of the following:

   Elementary education _____

   Secondary education _____
4. Subjects I am/will be specialized in (two possibilities): _____

   _____
5. Subjects I have competence in: _____

   _____
6. Which of the following applies to you? Check all that apply.

   I am married. _____

   I have a family member who is gifted. _____

   I think I am gifted. _____

   I have taught or worked with gifted children. _____

   I am considered a gifted program teacher. _____

Attitudes Towards Giftedness

Directions: Indicate your agreement or disagreement using a five-point Likert scale **(1 = completely disagree, 2 = moderately disagree, 3 = undecided, 4 = moderately agree, 5 = completely agree).** Circle the appropriate number for each question below.

1. Talent is a rare commodity which we must encourage.	1	2	3	4	5
2. Devoting special funds to the education of gifted children constitutes a profitable investment in the future of our society.	1	2	3	4	5
3. Offering special help to the gifted helps perpetuate social inequalities.	1	2	3	4	5
4. Special services for the gifted constitute an injustice to other children.	1	2	3	4	5
5. Special programs for gifted children have the drawback of creating elitism.	1	2	3	4	5
6. Since we invest supplementary funds for children with difficulties, we should do the same for the gifted.	1	2	3	4	5
7. It is unfair to deprive gifted children of the enrichment which they need.	1	2	3	4	5
8. Children with difficulties have the most need of special educational services.	1	2	3	4	5
9. In our schools, it is not always possible for gifted children to fully develop their talents.	1	2	3	4	5
10. Our schools are already adequate in meeting the needs of the gifted.	1	2	3	4	5
11. Gifted children don't need special educational services.	1	2	3	4	5
12. The gifted are already favoured in our schools.	1	2	3	4	5
13. Whatever the school program, the gifted will succeed in any case.	1	2	3	4	5
14. Because of a lack of appropriate programs for them, the gifted of today may become the dropouts and delinquents of tomorrow.	1	2	3	4	5
15. The gifted waste their time in regular classes.	1	2	3	4	5
16. If the gifted are not sufficiently motivated in school, they may become lazy.	1	2	3	4	5
17. The gifted come mostly from wealthy families.	1	2	3	4	5
18. All children are gifted.	1	2	3	4	5
19. People are born gifted, you can't become gifted.	1	2	3	4	5
20. A greater number of gifted children should be allowed to skip a grade.	1	2	3	4	5
21. Most gifted children who skip a grade have difficulties in their social adjustment to a group of older students.	1	2	3	4	5
22. Schools should allow gifted students to progress more rapidly.	1	2	3	4	5
23. Enriched school programs respond to the needs of gifted children better than skipping a grade.	1	2	3	4	5

24. An enriched school program can help gifted children to completely develop their abilities.	1	2	3	4	5
25. The best way to meet the needs of the gifted is to put them in special classes.	1	2	3	4	5
26. Most teachers do not have the time to give special attention to their gifted students.	1	2	3	4	5
27. By separating students into gifted and other groups, we increase the labelling of children as strong-weak, good-less good, etc.	1	2	3	4	5
28. Special programs for gifted children make them more motivated to learn	1	2	3	4	5
29. When the gifted are put in special classes, the other children feel devalued.	1	2	3	4	5
30. Often, gifted children are rejected because people are envious of them.	1	2	3	4	5
31. Gifted children might become vain or egotistical if they are given special attention.	1	2	3	4	5
32. The speed of learning in our schools is far too slow for the gifted.	1	2	3	4	5
33. I am sometimes uncomfortable before people I consider to be gifted.	1	2	3	4	5
34. Average children are the major resource of our society, so, they should be the focus of our attention.	1	2	3	4	5
35. We should give special attention to the gifted just as we give special attention to children with difficulties.	1	2	3	4	5
36. Some teachers are jealous of the talents their gifted students possess.	1	2	3	4	5
37. It isn't a compliment to be described as a "whiz kid".	1	2	3	4	5
38. The enrichment tract is a good means with which to meet certain special needs of gifted children.	1	2	3	4	5
39. The gifted need special attention in order to fully develop their talents.	1	2	3	4	5
40. It is less profitable to offer special education to children with difficulties than to gifted children.	1	2	3	4	5
41. Gifted students often disturb other students in the class.	1	2	3	4	5
42. The idea of offering special educational services to gifted children goes against the democratic principles of our society	1	2	3	4	5
43. Sooner or later, regular school programs may stifle the intellectual curiosity of certain gifted children.	1	2	3	4	5
44. We have a greater moral responsibility to give special help to children with difficulties than to gifted children.	1	2	3	4	5
45. In order to progress, a society must develop the talents of gifted individuals to a maximum.	1	2	3	4	5
46. Gifted children are often unsociable.	1	2	3	4	5
47. The gifted should spend their spare time helping those who progress less rapidly.	1	2	3	4	5

48. It is parents who have the major responsibility for helping gifted children develop their talents.	1	2	3	4	5
49. It is more damaging for a gifted child to waste time in class than to adapt to skipping a grade.	1	2	3	4	5
50. Equal opportunity in education does not mean having the same program for everyone, but rather programs adapted to the specific needs of each child.	1	2	3	4	5
51. Special educational services for the gifted are a mark of privilege.	1	2	3	4	5
52. Generally, teachers prefer to teach gifted children rather than those who have difficulties.	1	2	3	4	5
53. Some children are more gifted than others.	1	2	3	4	5
54. In our schools, it is possible to meet the educational needs of the gifted without investing additional resources.	1	2	3	4	5
55. A child who has been identified as gifted has more difficulty in making friends.	1	2	3	4	5
56. All children could be gifted if they benefited from a favourable environment.	1	2	3	4	5
57. When gifted children are put together in a special class most adapt badly to the fact that they are no longer at the head of the class.	1	2	3	4	5
58. Skipping a grade emphasizes scholastic knowledge too much.	1	2	3	4	5
59. Skipping a grade forces children to progress too rapidly.	1	2	3	4	5
60. There are no gifted children in our school	1	2	3	4	5

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